Rock Your Desert Scape!

Why

I love collecting rocks and all things nature and I realized that most rocks in the desert are hot but so pretty so I wanted to find which landscaping rock made the most heat so people could see which rock are the best for their yard.

Problem

The problem is different types of rocks hold or reflect heat differently. What is the best type of rock to use in a desert landscaping?

Questions

Which types of rock hold or reflect the least amount of heat?

Which types of rock hold or reflect the most amount of heat?

What are the negatives to using rock in your landscaping?

Research

In this essay I will answer some of your questions. These are a few questions I will answer which landscaping rock makes the least amount of heat? Do landscaping rocks create microclimates? A microclimate is basically heat, just heat. And the last question I am going to answer is where should people not put rocks.

First which landscaping rock makes the least amount of heat? One good rock is limestone. It is good for hot weather because limestone naturally stays cool. Another good rock is travertine. It is great for the outdoors because it keeps cool under direct sunlight. The third best rock is granite because it is strong and does not hold much heat.

Next up you might be asking which rocks make the most amount of heat which I will answer now.
Microclimates are when conditions vary such as under a rock to under a tree.
Another fact about microclimates is structures and rocks hold heat making the surrounding areas warmer trees and low areas often are cooler because of shade or breezes.
Something that gardens are inventors and scientists experience is trial and error for their designs.
Rocks are a large contributor to microclimates.

Now where should we not put rocks? One spot where we should not put rocks are trees and shrubs. Because they burn the roots and trees but don't worry the way to prevent this is landscaping plastic under rock prevents weeds but suffocates roots.

To sum it up remember landscaping rocks like. travertine, granite, and limestone are the best for your landscaping but don't put them around your plants.

Hypothesis

I think that when i test the temperature of smaller and larger rocks that the smaller rocks will make the least amount of heat because it would hold in less heat and reflect it.

Variables

Dependant variable - my dependant variable is measuring the heat of the rocks

Independant Variable -my independent variable is the type of rocks

Materials:

- 8 small containers
- Temperature gun
- 8 varieties of rock: Desert Sunset Rock, Southwest Cobble Rock, Rio Multicolor Beach Pebbles, Large River Rock, Waikiki White, Large Beach Pebbles, Desert Rock from Yard, Quartz
- Data Sheet
- Pencil

Procedures:

1-Place 8 containers in a sunny spot in the yard.

2-In each container place 3 or 4 rocks so that the containers have the same type of rock and each container holds a different type of rock.

3-Measure the temperature of the rock inside each container using a thermometer gun.

4-Repeat measuring the temperature at 7 am and 4 pm every day for two weeks.

5-Record the temperature on the data sheet.

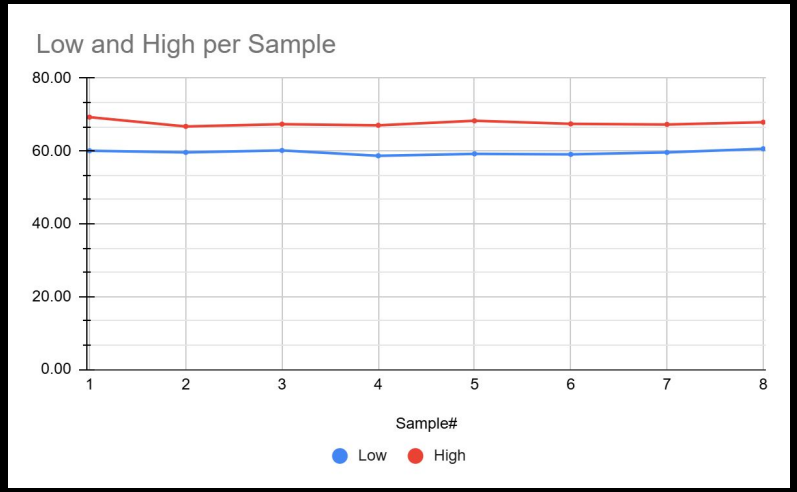
Name of sample	11/10/25		11/11/25		11/12/25		11/13/25		11/14/25		11/15/25		11/16/25	
	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
1	58	91	67	90	57	87	57	73	58	97	83	Missed	82	66
2	55	86	69	84	53	83	57	71	56	89	87	Missed	82	63
3	60	87	62	86	56	84	59	73	59	90	87	Missed	80	64
4	59	87	60	86	54	83	57	72	57	91	75	Missed	77	65
5	58	89	61	89	55	85	58	73	57	95	78	Missed	81	64
6	58	88	64	88	55	83	57	74	57	92	86	Missed	78	64
7	58	90	68	90	56	84	58	73	57	89	86	Missed	78	63
8	64	91	71	89	57	83	59	73	59	91	87	Missed	78	64
Control	54	93	76	94	59	88	64	76	63	94	90	Missed	82	69

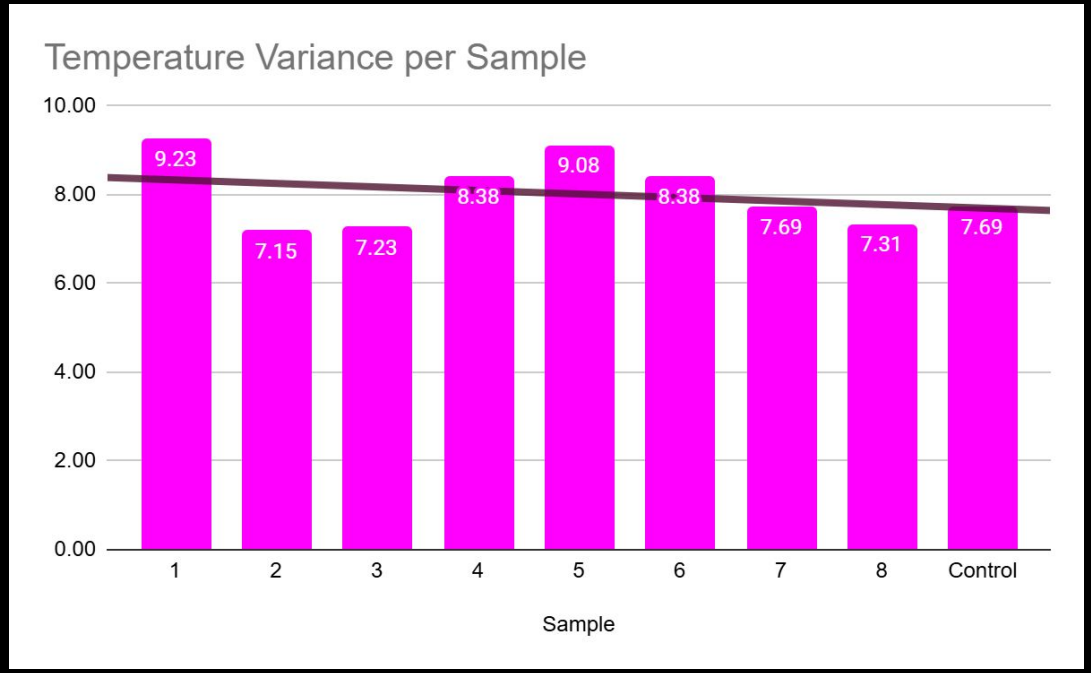
11/17/25		11/18/25		11/19/25		11/20/25		11/21/25		11/22/25		11/23/25		11/24/25	
AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
56	77	60	74	60	67	58	57	48	65	61	60	59	63	49	69
56	74	61	73	60	62	56	56	50	66	61	61	59	63	50	68
56	73	62	73	62	65	56	56	50	65	61	61	59	63	51	68
55	75	60	73	59	63	56	56	51	65	60	60	58	61	49	68
56	76	60	73	60	64	57	56	48	66	60	60	59	62	48	69
57	74	59	72	60	64	56	56	48	64	61	60	58	62	49	68
56	72	60	72	60	63	58	57	49	64	59	61	58	60	48	66
56	75	60	73	60	65	57	57	49	64	59	61	59	61	49	68
59	75	64	75	63	68	58	59	52	65	60	63	60	64	52	71

	Degrees F
Average Low	51.538
Average High	74.231

Sample	Low	High	Temp Variance
	60.08	69.31	9.23
	59.62	66.77	7.15
	60.15	67.38	7.23
	58.69	67.08	8.38
	59.23	68.31	9.08
	59.08	67.46	8.38
	59.62	67.31	7.69
	60.62	67.92	7.31
	62.62	70.31	7.69
	Avg Low & High per sample		

Data - Tables


Low and High per Sample
80.00
60.00
40.00
20.00
0.00
1
2
3
4
5
6
7
8
Sample#
Low
High


Temperature Variance per Sample
10.00
8.00
6.00
4.00
2.00
0.00
9.23
7.15
7.23
8.38
9.08
8.38
7.69
7.31
7.69
1
2
3
4
5
6
7
8
Control
Sample

What happened?

At the end 1 and 8 were the hottest rock 8 a smaller rock than 1

The coldest was 2 it was one of the smaller rocks

2 was rocks from yard and 1 was large river rock and 8 was southwest cobblestone rock.

I was trying to find out what rocks are the hottest and coldest. My hypothesis was smaller rocks will make less heat. My average was 50 to 60 in the morning and 80, 70, 90 in the afternoon. This happened because bigger rocks absorb more heat My hypothesis was right the smaller rocks were colder than the bigger rocks.I would change the time to later in the morning than earlier in the morning.

Works Cited

Kodet, Sasha. “Maximize Microclimates for Outdoor Comfort - Garden Style San Antonio.” *Garden Style San Antonio*, 13 Aug. 2024, www.gardenstylesanantonio.com/garden-articles/maximize-microclimates-for-outdoor-comfort/. Accessed 22 Jan. 2026.

Rahim Alijani. “Best Stones for Hot Weather.” *Rockstone*, 14 Mar. 2025, www.rockstone.biz/best-stones-for-hot-weather/.